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Government Services

Inundation Modeler

University of North Carolina
Morehead City, NC

Perot Systems Government Services (PSGS), a contractor to the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center (Center), seeks applications for a hydrodynamic (inundation) modeling position. The successful applicant will support the advancement of NOAA's Coastal and Estuarine Ocean Modeling efforts to address inundation associated with storm surge. Staff support is needed to develop, transition, and evaluate state of the art dynamic storm surge modeling software.

Specific responsibilities include working with NOAA (NOS, NWS) and university modelers under the oversight of the Environmental Modeling Program and Coast Estuaries and Ocean Program to:

- Develop and integrate advancements to the ADCIRC unstructured grid model for inundation simulation and prediction.
- Provide documentation of the options and procedures for setting up, testing and running the model system.
- Deliver improved ADCIRC software to NOAA and the coastal modeling community of scientists.
- Transition ADCIRC software to the NOAA operational High Performance Computing environment.
- Demonstrate the value of ADCIRC model output through the application of graphical and statistical measures of quality (tools).
- Prototype an ADCIRC application in the NOAA operational hurricane and associated storm surge prediction system.

The ideal applicant should have experience developing model applications of unstructured grid hydrodynamic models for coastal regions driven by water level and meteorological forcing. This includes models with grid refinement designed to capture important coastal features down to a few hundred meters or less. The candidate will participate in the development and evaluation of models of coastal storm surge inundation. Multiple projects are underway within NOAA to study state of the art hurricane storm surge models, including boundary condition specification and model accuracy. The candidate will work with a NOAA team from the National Ocean Service (NOS) and National Weather Service (NWS) that is involved in porting NOS operational models to the NOAA (NWS) Operational High Performance Computing Environment. A demonstration of this capability (porting) with an inundation hydrodynamic model will be required.

The position will be filled initially by a one-year contract, with the high probability of additional years of support. The applicant will use a variety of existing programs and software and will develop new Unix, Linux, Fortran, C, and/or MATLAB software to handle unique problems. Work will be performed both by working alone and as a member of a team, using PCs, workstation, cluster, and high performance computers. Results will be written up in technical publications and may be presented at scientific meetings and workshops. Applicants should have either a Master's or Ph.D. degree in ocean science, earth science, or a related field and 5 years of experience.

About the Coastal Services Center
The Coastal Services Center is part of the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service. Established in 1994, the Center works with various branches of NOAA and other federal agencies to bring information, services, and technology to the nation's coastal resource managers. For more information, visit the Center's Web site at www.csc.noaa.gov .

To Apply: Visit careers.psgs.com